

## METHODS AND SYSTEMS FOR MONITORING MACHINERY

### ABSTRACT OF THE DISCLOSURE

A method and system for operating a facility having a plurality of equipment combinations wherein each equipment combination is operating interactively with at least one of another of the plurality of equipment combination is provided. The method includes receiving, in real-time, for each of the plurality of equipment combinations, a plurality of measured process parameters, determining at least one derived quantity from the plurality of measured process parameters, and recommending a change to an equipment operation based on the measured process parameters and the derived quantities.